REMARKS

Claims 1, 2, 4, 6-9, 21, 23-25, and 27-28 are currently pending in the Application. Claim 1, 21, and 25 are currently amended, without acquiescence in the cited basis for rejections or prejudice to pursue the original claims in a related application. Claims 30-32 are new. No new matter has been added.

I. Rejections of Claims under 35 USC § 103(a)

Claims 1-2, 4, 6-9, 11, 14-18, 21, and 23-28 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Wong (Pub. No. 2004/0264464) in view of, in view of Tang et al. (U.S. Patent No. 6,553,028 B1).

Regarding the rejection of claims 11, 14-18, and 26, the rejection is now moot based upon the cancellation of these claims. Regarding the rejection of claim 1-2, 4, 6-9, 21, 23-25, and 27-28, Applicant respectfully traverse.

Without acquiescence in the cited basis for rejection or prejudice to pursue the original claim in a related application, independent claim 1 is currently amended and recites at least the following limitations.

> a number of duplications of the packet for each of at least some of the plurality of output ports is controlled by descriptors arranged in the linked-list table and is duplicated on a per port basis by duplicating the number of duplications on at least one of the plurality of output ports as specified in the descriptors rather than by duplicating the packet,

which has been received at the input port, on all of the plurality of output ports,
at least one of the one or more descriptor is shared among multiple output ports of the plurality of output ports, and
(emphasis added.)

Applicants respectfully submit that neither Wong nor Tang teaches, discloses, or suggests these claim limitations.

A. Applicants respectfully submit that the U.S. Court of Appeals for the Federal Circuit held that "[t]he Supreme Court went on to state that 'when a patent simply arranges old elements . . . the combination is obvious' (citation omitted)", and that "[t]he opposite conclusion would follow, however, if the prior art indicated that the invention would not have worked for its intended purpose or otherwise taught away from the invention. (Citation omitted.)" *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, ____ (Fed. Cir. 2009) (emphasis added.)

(i) Claim 1 recites at least the claimed limitation "a number of duplications of the packet for each of at least some of the plurality of output ports is controlled by descriptors arranged in the linked-list table and is duplicated on a per port basis by duplicating the number of duplications on at least one of the plurality of output ports as specified in the descriptors rather than by duplicating the packet, which has been received at the input port, on all of the plurality of output ports".

In contrast, in explaining its detailed replication technique, Tang first discloses "[t]he replication engine uses the L3 information, including the MET pointer, MAC SA and LTL index

to perform the necessary replication operations . . . For frames destined to ports on VLANs other than the ingress VLAN, the replication engine rewrites those frames." Col. 14, ll. 4-15. More importantly, Tang then expressly requires that "[s]pecifically, **each port** on the switch receives the frame driven over the switching bus 310 and the port select signals derived from the LTL index instruct only those selected ports to 'keep' the frame; **all other ports discard the frame**. The replication engine 316 starts with an egress VLAN entry, replicates it over the switching bus and then issues the index to the LTL 350 which provides the port select signals that select the appropriate ports within that VLAN." Col. 14, ll. 16-23 (emphasis added.)

Applicants respectfully submit that Tang clearly teaches away from at least the above claimed limitation because Tang replicates the frame on all the ports other than the ingress port on the switch and thus performs the replication of the frame on all the output ports. Tang's approach then uses the port select signals that are specified in the index (e.g., 822) to instruct the selected ports to keep the replicated data, while the other ports are required to **discard such replicated data**.

Applicants respectfully submit that this explicit requirement of replicating the frames on all the output ports clearly teaches away the claimed limitation "duplicating the number of duplications on at least one of the plurality of output ports rather than by duplicating the packet, which has been received at the input port, on all of the plurality of output ports"

(ii) The Office action considers Tang's index as disclosing or rendering obvious the claimed limitation "descriptor", which Applicants strenuously disagree, Applicants respectfully submit

that Tang not only fails to disclose or suggests but in fact teaches away from at least the claimed limitation "at least one of the one or more descriptor is shared among multiple output ports of the plurality of output ports".

Tang expressly discloses that "the forwarding engine 302 and the shortcut engine 304 render forwarding decisions for frames/packets passing through the switch 300 and drive those decisions (e.g., **unique index values**), over a result bus 306 where they are received by a local target logic (LTL) circuit 350. The LTL 350 then implements the forwarding decisions by mapping the index values to port select signals used to select ports . . . ." Col. 7, ll. 46-54 (emphasis added.) Tang further explicitly discloses that "[t]here are generally two values assigned to each port of the switch 300: a VLAN value and an index value. The index is a hard-coded value that **uniquely identifies the port** to the switch . . . ." Col. 8, ll. 16-19 and 38-41 (emphasis added.)

That is, Tang's indices are not shared because each of such indices uniquely identifies an output port. .

Therefore, Applicants respectfully submit that to the extent that the Office action considers Tang's indices as disclosing or rendering obvious the claimed limitation "descriptors", none of Tang's LTL entries can be shared. As such, Tang again teaches away from at least the claimed limitation "at least one of the one or more descriptor is shared among multiple output ports of the plurality of output ports".

Therefore, Applicants respectfully submit that the Tang cannot be combined with other references to support claim rejections under 35 U.S.C. § 103(a) as mandated by the 35 U.S.C. § 103 jurisprudence for at least the foregoing reasons.

B. MPEP mandates that the proposed modification cannot change the principle of operation of a reference, and that the suggested combination may not require a substantial reconstruction and redesign of the elements in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." MPEP § 2143.01 citing *In re Ratti*, 270, F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959) (emphasis added.)

(i) As Applicants respectfully presented in sub-section A immediately above, the basic principle of Tang's approach requires the replication of the frame on all the output ports and then the output ports that are not identified by the port select signals in the index then discards the replicated frame. Nonetheless, in order to support claim rejections under 35 U.S.C. § 103(a), Tang's approach must be modified such that the packet is not duplicated on all of the plurality of output ports.

In addition, Applicants respectfully submit that Tang's approach non-selectively replicates the frame on all the output ports. On the other hand, the alleged combination must be modified so as to perform the claimed limitation "duplicating the number of duplications on at least one of the plurality of output ports as specified in the descriptors rather than by duplicating the packet, which has been received at the input port, on all of the plurality of output ports". Applicants respectfully submit that this modification clearly amounts to the prohibited

substantial redesign and reconstruction that is prohibited by MPEP § 2143 and the 35 U.S.C. § 103 jurisprudence because Tang only discloses the replication of the frame on all the output ports but does not even remotely suggest its replication may be performed on at least one but not all of the output ports.

(ii) In addition, Tang's approach requires an index to uniquely identify an output port, and thus requiring Tang's index to be shared among multiple output ports inevitably changes the basic principle under which Tang is designed to operate and invariably requires substantial, if not complete, reconstruction and redesign of Tang's approach in selecting the ports for replication.

As such, Applicants respectfully submit that the alleged combination of Tang and other reference inevitably changes Tang's basic principle of operation of replicating the frame on all the output ports and invariably requires the prohibited substantial reconstruction and redesign and thus violates the mandate of MPEP § 2143 and 35 U.S.C. § 103 jurisprudence.

C. Applicants first respectfully submit that MPEP requires that "[a] prior art reference must be considered **in its entirety**, i.e., as a whole, including portions that would lead away from the claimed invention." MPEP § 2141.03 citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) (emphasis added.)

Applicants respectfully submit that the Office action clearly fails to consider Tang's explicit teaching-away disclosure as presented in sub-section A immediately above. Therefore, Applicants respectfully submit that the final Office action fails to considers Tang's disclosure in

its entirety and thus fails to properly establish a proper prima facie case under 35 U.S.C. § 103(a) as mandated by MPEP

D. The Office action further cites to ¶ [0003] of the instant Application and alleges that this paragraph constitutes applicant's admitted prior art, and that this paragraph discloses the above claimed limitation. Applicants respectfully disagree.

Applicants respectfully submit that ¶ [0003] discloses the duplication possibilities that could occur in the form of examples. In other words, this paragraph merely discloses that there exists a need to encompass various duplication possibilities and to accommodate IPMC packets or other types of packets that require duplication on designated ports. Nonetheless, this paragraph does not disclose, either explicitly or implicitly, any prior approach that accommodates such duplication possibilities. Rather, this paragraph concludes with the statement that "[a]ccordingly, a hardware solution must be flexible enough to accommodate IPMC or other similar type packets requiring duplication on a variety of designated member ports."

Therefore, Applicants respectfully submit that this paragraph does not disclose or suggest the above claimed limitation, and that all currently pending claims are believed to be allowable over the prior art of record.

CONCLUSION

Based on the foregoing, all claims are believed allowable, and an allowance of the claims is respectfully requested. If the Examiner has any questions or comments, the Examiner is respectfully requested to contact the undersigned at the number listed below.

To the extent that any arguments and disclaimers were presented to distinguish prior art, or for other reasons substantially related to patentability, during the prosecution of any and all parent and related application(s)/patent(s), Applicant(s) hereby explicitly retracts and rescinds any and all such arguments and disclaimers, and respectfully requests that the Examiner re-visit the prior art that such arguments and disclaimers were made to avoid.

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Respectfully submitted,

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